

REMARKS

The Office Action of December 21, 2005, has been considered by the Applicants. Applicants acknowledge the allowance of claim 25 and the indication of allowable subject matter in claims 7, 8, and 24. None of the claims have been amended. Claims 1, 2, 4-8, and 10-25 remain pending. Reconsideration of the Application is requested.

Claims 1, 2, 4-9, 8-25 were rejected under the judicial doctrine of obviousness-type double patenting as unpatentable over claims 1-37 of US Patent No. 6,897,284. The numbering of the rejected claims is ambiguous; Applicants reply assuming that the Examiner meant to reject all pending claims. Applicants traverse the rejection.

The instant claims have broader scope than that of the '284 patent. Nonetheless, to expedite prosecution, Applicants have submitted a Terminal Disclaimer over the '284 patent. This application and the '284 patent are commonly owned. Applicants request withdrawal of the double patenting rejection.

Claims 1, 2, 3-6, and 10-23 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over US 2003/0144466 to Ong.

Additionally, claims 1, 2, 3-6, and 10-23 were rejected under 35 U.S.C. 103(a) as reportedly being obvious over EP 1327647 to Xerox. Applicants traverse these rejections on the same basis.

The current application discloses polymers comprising (1) an unsubstituted or monosubstituted thienylene and (2) a monosubstituted or disubstituted arylene.

Ong discloses polymers comprising (1) an unsubstituted thienylene, (2) a disubstituted thienylene, and (3) an arylene unit. The Examiner reasoned that a disubstituted thienylene is a homolog of a monosubstituted thienylene and that substituted arylenes were obvious from the genus of arylenes. Thus, the instant claims are obvious because of their close structural similarity and expected properties or expected differences in properties as a result of that structural similarity.

The EP reference discloses polymers comprising (1) an unsubstituted thienylene, (2) a monosubstituted thienylene, and (3) an arylene unit. The Examiner again reasoned that substituted arylenes were obvious from the genus of arylenes because of their close structural similarity and expected properties or expected differences in properties as a result of that structural similarity.

However, please note that the claimed polymers are not obvious over either of these references. Whether a monomer has substituents, or how many substituents the monomer has, dramatically affects the properties of polymers such as molecular weight, melting temperature, glass transition temperature, crystallinity, solubility, conjugation length, etc. As a result, different polymers show different behavior. In addition, polymers with substituents and polymers with different numbers of substituents require different synthetic methods.

Applicants take the position that monosubstituted thienylenes and disubstituted thienylenes do not have close structural similarity (i.e. are not homologs) and that their properties cannot be predicted. For example, under the Examiner's reasoning, polymer (8) of the instant claims should have properties similar to that of polymer (3) in EP 1327647. However, polymer (8) has twice the mobility of polymer (3). This difference in properties cannot be predicted by their structure.

In addition, the Examiner does not appear to show where there is motivation in either reference to add substituents to either the thienylene or the arylene monomer.

Therefore, the instant claims are not obvious over either Ong or the EP reference. Applicants request withdrawal of the 103(a) rejections.

CONCLUSION

For the above reasons, it is submitted that all pending claims are in condition for allowance. Withdrawal of the rejections and issuance of a Notice of Allowance is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is hereby authorized to call Richard M. Klein, at telephone number 216-861-5582, Cleveland, OH.

It believed that no fee is due in conjunction with this response. If, however, it is determined that fees are due, authorization is hereby given for deduction of those fees, other than the issue fees, from Deposit Account No. 24-0037.

Respectfully submitted,

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